

PATENT

Bernard Malfroy-Camine  
Application No.: 08/973,576  
Page 2

recovering the lipidized protein;

wherein:

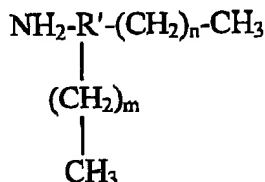
the lipidized protein is capable of transvascular transport, enhanced organ uptake and intracellular localization.

4. (Amended) A method according to Claim 2, wherein the lipoamine is a straight-chain lipoamine according to the formula:



where R is selected from the group consisting of: disubstituted alkyl (alkylene); 1,4-disubstituted cyclohexyl; disubstituted aryl (arylene); amido group of the formula  $\text{-(CHR}_1\text{)-CO-NH-}$  wherein  $\text{R}_1$  is hydrogen or an amino group; alkylcarbonyl; and phosphate diester; n is 10 [1]-50.

5. (Amended) A method according to Claim 2, wherein the lipoamine is a branched-chain lipoamine according to the formula:



where  $\text{R}'$  is: a trisubstituted alkyl; a trisubstituted aryl; an amido group of the formula  $\text{-(CHR}_1\text{)-CO-N<}$  wherein  $\text{R}_1$  is hydrogen or an amino group; an imino group of the formula  $\text{-(CHR}_2\text{)-NH-CH<}$  wherein  $\text{R}_2$  is hydrogen or an amino group or an imino group of the formula  $\text{-CH}_2\text{-N<}$ ; or a phosphate diester; m is 1-50; n is 10 [1]-50; and m and n are selected independently.

9. (Three times amended) A method for targeting an intracellular protein for binding with an antibody in a cell, comprising contacting the cell with a lipidized antibody which binds specifically with the intracellular protein, wherein said lipidized antibody is an antibody covalently linked to a lipid having a hydrocarbon tail of at least 12 carbons through a

PATENT

Bernard Malfroy-Camine  
Application No.: 08/973,576  
Page 3

D4 cont'd  
carbohydrate moiety and wherein said lipidized antibody is capable of transvascular transport, enhanced organ uptake and intracellular localization.

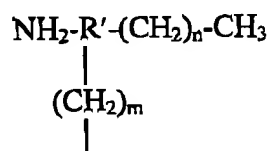
D5  
14. (Three times amended) A composition comprising a therapeutically effective dosage of a lipidized protein and a pharmaceutically acceptable carrier, wherein said lipidized protein is a protein covalently linked to a lipid having a hydrocarbon tail of at least 12 carbons through a carbohydrate moiety and wherein said lipidized protein is capable of transvascular transport, enhanced organ uptake and intracellular localization.

D6  
19. (Three times amended) A composition comprising a lipidized antibody and a pharmaceutically acceptable carrier, wherein a lipid substituent having a hydrocarbon tail of at least 12 carbons is covalently linked to the antibody by a covalent linkage of at least one lipoamine residue to a carbohydrate side chain to produce said lipidized antibody and wherein said lipidized antibody is capable of transvascular transport, enhanced organ uptake and intracellular localization.

D7  
20. (Three times amended) A lipidized antibody, wherein said lipidized antibody is linked to a label selected from the group consisting of radionuclides, enzymes, enzymes substrates, enzyme inhibitors, ligands, radiocontrast agents and metal chelates, wherein a lipid substituent having a hydrocarbon tail of at least 12 carbons is covalently linked to the antibody by a covalent linkage of at least one lipoamine residue to a carbohydrate moiety to produce said lipidized antibody and wherein said lipidized antibody is capable of transvascular transport, enhanced organ uptake and intracellular localization.

Please add new claim 23 as set forth below:

24  
-23. A method according to Claim 2, wherein the lipoamine is a branched-chain lipoamine according to the formula:



Rle 1.12b  
D8